

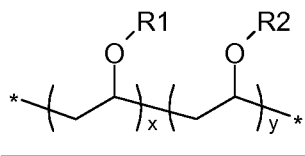
AMENDMENTS TO THE CLAIMS

In the claims, please amend claim 19 as follows:

1-18. (canceled)

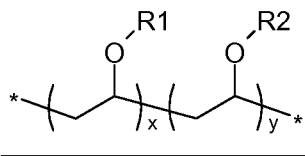
19. (currently amended) A method for delivering a polynucleotide to the cytoplasm of a cell comprising:

- a) forming a first amine-containing amphiphilic polyvinylether polymer having the formula:



wherein R1 contains an amine group and R2 is a hydrophobic group;

- b) forming a second amine-containing amphiphilic polyvinylether polymer capable of causing liposome leakage having the formula:



wherein R1 contains an amine group and R2 is a hydrophobic group;

- c) reversibly modifying the second amine-containing amphiphilic polyvinylether polymer via covalent linkage of a plurality of disubstituted maleic anhydride to amines on the polymer thereby forming a reversibly inhibited membrane active polymer, wherein:
- i) the reversibly inhibited membrane active polymer is not capable of causing liposome leakage, and
  - ii) exposure of the reversibly inhibited membrane active polymer to acidic pH results in cleavage of the disubstituted maleic anhydride from the second amine-containing amphiphilic polyvinylether polymer; and,
- d) associating said polynucleotide with the first amine-containing amphiphilic polyvinylether polymer to form a binary complex;
- e) associating said binary complex with the reversibly inhibited membrane active polymer to form a ternary complex; and
- f) contacting the cell with the ternary complex resulting in delivery of the polynucleotide to the cell.

20-21. (canceled)

- 22. (previously presented) The method of claim 19 wherein said first amine-containing amphiphilic polyvinylether polymer is crosslinked to said reversibly inhibited membrane active polymer via a pH-labile bond.
- 23. (previously presented) The method of claim 19 wherein said amine-containing amphiphilic polyvinylether polymers disrupt an endocytic membrane of the cell thereby providing delivery of said polynucleotide the cytoplasm of said cell.

24-26. (canceled)

- 27. (previously presented) The method of claim 19 wherein said disubstituted maleic anhydrides are selected from the group consisting of: carboxydimethylmaleic anhydride, carboxydimethylmaleic anhydride-thioester, and carboxydimethylmaleic anhydride-polyethylene glycol.
- 28. (previously presented) The method of claim 27 wherein said disubstituted maleic anhydrides are cleaved from said second amine-containing amphiphilic polyvinylether polymer in an endosome.
- 29. (previously presented) The method of claim 19 wherein said amine-containing amphiphilic polyvinylether polymers each have a molecular weight greater than 10,000 Daltons.
- 30. (previously presented) The method of claim 22 wherein said ternary complex consists of a nanoparticle.
- 31. (previously presented) The method of claim 30 wherein said nanoparticle consists of a salt stable nanoparticle.
- 32. (previously presented) The method of claim 31 wherein said ternary complex has a net negative charge.